Sample Solutions to Prerequisite Quiz

1. Here is one possible implementation

```
int i = 0;  /* corresponds to bx */
int j;      /* corresponds to cx */
for (j = n; j > 0; j--) {
  int t = a[i] + f;
  if (t == 0)
    break;
  b[i] = t;
  i++;
}
```

Alternatively, we can do away with `j` to get a simpler loop:

```
int i;
for (i = 0; i <= n; i++) {
  int t = a[i] + f;
  if (t == 0)
    break;
  b[i] = t;
}
```

Both of these solutions assume that the initial value of `N` is > 0. There's no real justification for this, though. A more scrupulous solution would be:

```
int i = 0;  /* corresponds to bx */
int j;      /* corresponds to cx */
for (j = n; ; j--) {
  int t = a[i] + f;
  if (t == 0)
    break;
  b[i] = t;
  i++;
  if (j == 0)
    break;
}
```

2. See Tanenbaum Figure 3-4(c), p. 124.

3. `grep y2k *y2k*`